Decision Variables:
Let the quantity of Collegiate model to be produced is 'C'
Let the quantity of Mini model to be produced is 'M'

Objective: To maximize the profit from sales of both models.
Let Z be the profit earned.
So, **Z = 32C + 24M**

Constraints:
Maximum Nylon fabric available – 5000 Sqft
Nylon required for Collegiate mode – 3 Sqft
Nylon required for Mini model - 2 Sqft

So, the first constraint is **3C + 2M ≤ 5000**

Number of labor minutes available per week = 35*40*60 = 84000
Labor minutes required for each Collegiate model - 45
Labor minutes required for each Mini model - 40

So, the second constraint is **45C + 40M ≤ 84000**

No of Collegiate models to be produced **C ≤ 1000**
No of Mini models to be produced **M ≤ 1200**